MECHANICAL SYSTEMS DATA SHEET: VESSEL

Plant Item No.	Data Sheet No.
24590-PTF-ME-RDP-VSL-00004	24590-PTF-MVD-RDP-P0008

Project:	RPP-WTP	Description:	Spent Resin Dewatering Moisture Separation
Project No:	24590	P&ID:	24590-PTF-M6-RDP-P0002
Site:	Hanford	Process Data Sht:	24590-PTF-MEC-RDP-00001
Process flow diagram:	24590-PTF-M5-V17T-P0020	Manufacturer Name	RWE NUKEM

ISSUED BY RPP-WTP PDC 6/28/04 INIT DATE

Reference Data

Charge Vessels (Tag Numbers)	N/A
Pulsejet Mixers / Agitators (Tag Numbers)	N/A
RFDs/Pumps (Tag Numbers)	N/A

Design Data

Quality Level		CM	Fabrication Specs	24590-WTP-3PS-MV00-TP001		
Seismic Category		SC-III	Design Code	ASME VIII Div 1		
Service/Contents		Radioactive Water	Code Stamp	Yes		
Design Specific Gravity		1.00	NB Registration	Yes		
Maximum Operating Volume	gal	79.67	Weights (lbs)	Empty	Operating	Test
Total Volume (Calculated)	gal	101.34	Estimated*	663	1509	*
			Actual *	After Fabrication*	After Fabrication*	*

Inside Diameter	inch	23.5			Wind Design	Not Required	
Length/Height (Overall)	inch	59.375			Snow Design	Not Required	
		Vessel Operating	Vessel Design	Coil/Jacket Design	Seismic Design	24590-WTP-3PS-FB01-T0001 & 24590-WTP-3PS-MV00-TP002	
Internal Pressure	psig	2	15	N/A	Seismic Base Moment *	ft*lb	1938
External Pressure	psig	0	FV	N/A	Postweld Heat Treat	Not Required	
Temperature	°F	60	300	N/A	Corrosion Allowance	Inch	0.125
Min. Design Metal Temp.	°F	-10			Hydrostatic Test Pressure *	psig	22.5

Contents of this document are Dangerous Waste Permit Affecting.

Note: Please note that source, special nuclear and byproduct materials, as defined in the Atomic Energy Act of 1954 (AEA), are regulated at the U.S. Department of Energy (DOE) facilities exclusively by DOE acting pursuant to its AEA authority. DOE asserts, that pursuant to the AEA, it has sole and exclusive responsibility and authority to regulate source, special nuclear, and byproduct materials at DOE-owned nuclear facilities. Information contained herein on radionuclides is provided for process description purposes only.

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7-22-04

EXPIRES: 11/9/2004

This Bound Document Contains a Total of 2 Pages.

Rev	Description	By	Checked	Approved	Date
0	Issued for Permitting Use	J. Hickman	G. Butt 6/28/04	~~J Chiaramonte~~ J. Julyk	6/28/04

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Materials of Construction

Component	Material	Minimum Thickness / Size	Containment
Top Head	SA-240 UNS S31603 (Max 0.030% C; Dual Certified)	1/2*	Auxiliary
Shell	SA-240 UNS S31603 (Max 0.030% C; Dual Certified)	1/4*	Primary
Bottom Head	SA-240 UNS S31603 (Max 0.030% C; Dual Certified)	5/8*	Primary
Support	SA-240 UNS S31603 (Max 0.030% C; Dual Certified)	Skid mounted (RDP-SKID-00001)	N/A
Jacket/Coils/Half-Pipe Jacket	N/A	N/A	N/A
Internals	SA-312 304 UNS S30403 (Max 0.030% C; Dual Certified)	.065 In Wall 1/2 In Tube* .065 In Wall 3/4 In Tube*	Instrument Piping Primary
Pipe	SA-312 TP316L UNS S31603 (Max 0.030% C; Dual Certified)	.154 In/ 2 In SCHED 40S* .237 In/4 In SCHED 40S*	See Note 2
Forgings/ Bar stock	SA-479 UNS S31603 (Max 0.030% C; Dual Certified)	1 In Round Stock	As Note 2 for Nozzle Necks
Gaskets	Neoprene	1/8 In Gasket	Auxiliary
Bolting	SA 194 8M/SA 193 B8M	3/4 In Fasteners	Auxiliary

Miscellaneous Data

Orientation	Vertical	Support Type	Mounted on Equipment Skid (RDP-SKID-00001)
Insulation Function	N/A	Insulation Material	N/A
Insulation Thickness (inch)	N/A	Internal Finish	After Fabrication
		External Finish	After Fabrication

Remarks

*To Be Determined By Seller

Note 1: Design Life is 40 years.

Note 2: Nozzle necks below maximum liquid level are primary, others auxiliary.